

WHAT IS CLAIMED IS:

1. A method for analyzing no trouble found events from one or more similar machines, wherein the no trouble found events are those for which no cause could be identified, said method comprising:

5 (a) receiving data representing the faults experienced by the one or more machines;

(b) receiving no trouble found event data;

(c) for the one or more machines, selecting faults occurring within a predetermined time prior to a selected no trouble found event;

10 (d) generating at least one distinct fault cluster from the plurality of selected faults; and

(e) determining the correlation between the selected no trouble found event and the at least one distinct fault cluster.

2. The method of claim 1 wherein the fault data includes operational parametric information occurring at or near the time when the fault occurred.

3. The method of claim 1 including a step (f) determining the root cause for the selected no trouble found event based on a high correlation with the at least one distinct fault cluster.

4. The method of claim 1 wherein the step of determining the correlation includes:

20 (e1) creating a plurality of cases, wherein each case comprises a specific no trouble found event and the faults selected in step (c);

(e2) creating distinct fault clusters for each of the plurality of cases, wherein the number of distinct fault clusters within each case is equivalent to the number of unique fault combinations for the faults within the case;

25 (e3) determining the number of occurrences of the combination of the selected no trouble found event and each cluster within all cases;

(e3) determining the number of occurrences of each fault cluster within all cases; and

30 (e4) wherein the correlation value is calculated by dividing the results of step (e2) by the results of step (e3).

5. An article of manufacture comprising a computer program product comprising a computer-usable medium having a computer-readable code therein for analyzing no trouble found events from one or more similar machines, said article of manufacture comprising:

5 a computer-readable program code module for receiving fault data representing the faults experienced by the one or more machines;

a computer-readable program code module for receiving no trouble found event data;

10 a computer-readable program code module for the one or more machines, for selecting faults occurring within a predetermined time prior to the selected no trouble found event;

a computer-readable program code module for generating at least one distinct fault cluster from the plurality of selected faults; and

15 a computer-readable program code module for determining the correlation between the selected no trouble found event and the at least one distinct fault cluster.

6. The article of manufacture of claim 5 wherein the fault data includes operational parametric information occurring at or near the time when the fault occurred.

20 7. The article of manufacture of claim 5 including a computer-readable program code module for analyzing the no trouble found event to determine the root cause based on a high correlation with the at least one distinct fault cluster.